FRANKFURT, H.O.

Determining the recurrence of loads in calculating windmill components for durability. Prom. aerodin. no.13:106-116 '59.
(MIRA 13:3)

(Windmills)

FRANKFURT, M.O.

Investigating aerodynamic loads of a wind wheel regulated by turning blade tips. Prom.aerodin. no.16:53-68 '60. (MIRA 13:8)
(Aerodynamics) (Windmills)

FRANKFURT, M.O.

Calculating the starting moment of a low-speed wind-driven engine. Prom.aerodin. no.21:167-168 '62. (MIRA 15:4)
(Windmills)

FRANKFURT, M.O.

Aerodynamic regulation of a wind engine by turning the windmill by aerodynamic forces. Prom.aerodin. no.26:5-46 '64.

(MIRA 18:1)

FRANKFURT, M.O.; VOLOSTNYKH, V.N.

Changes in the forms of characteristics of the moments of windmill turns by means of end flaps. Prom.aerodin. no.26:79-87 '64. (MIRA 18:1)

Increasing the pick-up and starting moment of a high-speed windmill. Ibid.:88-92

FRANKFURT, O.S. (Moskva)

Genetics of tissue transplantation. Pat.fiziol.i eksp.terap. 5 no.1:74-82 Ja-F '61. (MIRA 14:6)
(TRANSPLANTATION OF ORGANS, TISSUES, ETC.)

FRANKFURT, O.S. (Moskva)

Concerning Harold Stuart's article, "Cancer investigator."
Pat. fiziol. i eksp. terap. 5 no.2:87-89 Mr-Ap '61. (MIRA 14:5)
(UNITED STATES--CANCER RESEARCH) (STUART, HAROLD)

FRANKFURT, O.S. (Moskva, Kutuzovskiy pr. 12, kv.361)

Nature of the difference in the staining of nuclei of normal and cancerous cells with ammoniacal silver. Vop. onk. 9 no.12:61-69 '63. (MIRA 17:12)

1. Iz gruppy eksperimental'noy onkologii (zav. - dr. biol. nauk L.P. Lipchina) otdela khimicheskikh i biologicheskikh protsessov (zav. - chlen-korrespondent AN SSSR N.M. Emanuel') Instituta khimicheskoy fiziki AN SSSR (direktor - akademik N.N. Semenov).

FRANKFURT, O.S.; LIPCHINA, L.P.; EMANUEL', N.M.

Effect of inhibitors-antioxidants (phenols) on the life cycle of Ehrlich's ascites carcinoma cells. Dokl. AN SSSR 153 no.3:699-702 N '63. (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Emanuel').

FRANKFURT, O.S.

Effect of sarcolysine on the life cycle of Ehrlich's ascitic carcinoma cells. Dokl. AN SSSR 153 no.4:930-932 D '63.
(MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom N.M. Sisakyanom.

ACCESSION NR: AP4010764 S/0020/64/154/001/0207/0209

AUTHORS: Frankfurt, O.S.; Lipchina, L.P.
(presented by N.M. Sisakyan, Academician, on 7.17.1963)

TITLE: Action of x-radiation on the cells of the Ehrlich ascite carcinoma as revealed by the radioautography method

SOURCE: AN SSSR. Doklady*, v. 154, no. 1, 1964, 207-209

TOPIC TAGS: ascite carcinoma, cancer cytology, mitotic activity, radiomimetics, timidine h three, cancer inhibitors

ABSTRACT: This study is a further development of a previous work by the authors (same journal 153, Nos. 3 and 4) concerning inhibitors of radical reactions and alkalizing compounds causing considerable changes in the life cycle of cancerous cells. Investigation results of x-radiations are inconsistent and prompted the present study. Mice of the BALB strain were injected with 10 million cells of the Ehrlich ascite carcinoma. Three days later they received a general exposure of 800 r with the RUT-200 installation (15 ma.,

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ACCESSION NR: AP4010764

Al0.5 mm filter, dose 41 r/min). Timidine-H^3 (for tagging TH^3, 3 curies/mmol) was introduced into peritoneum in portions of 5 micro - curies. Radioautographs of the ascite liquid smears were made and the conclusion is that both chemical inhibitors and radiation block the transition from phase G_2 to M. Both chemical agents are radio- mimetics. Only sarkolysine acts directly on the DNA synthesis, and the $G_1 \longrightarrow S$ transition is only caused by radical process inhibitors. No such reactions were observed after radiation. Blocking of G_1, S and G_2 phases delays cell division for 24 hours and changes the phase distribution of cell population during the following period. Inhibitors of radical reactions and radiation also influence the second generation of the S and G_2 phases, respectively. Sarcolysine delays cell multiplication for 5 days. These after effects are of great importance for chemio- and radio-therapy. Gratitude is ex- pressed to N.M. Emanuel, corresp. member AN SSSR for discussion of results. Orig. art. has 4 figures, no formulas, no tables.

ASSOCIATION: Institut khimicheskoy fiziki, AN SSSR (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 11Jul63 DATE ACQ: 10Feb64 ENCL: 00
SUB CODE: OH, PH NO REF SOV: 002 OTHER: 010

Card 2/2

FRANKFURT, O.S.

Radioautographic study of the cell life cycles in solid tumors; the G_2 phase in the cells of hepatoma and mammary tumors. Tsitologiia 7 no.3:386-393 My-Je '65. (MIRA 18:10)

1. Otdel khimicheskikh i biologicheskikh protsessov Instituta khimicheskoy fiziki AN SSSR, Moskva.

24371 FRANKFURT, S. I. O bezzheltushnom leptospiroze. Vrachеb. Delo, 1949, No. 8, STB. 715-16.

SO: Letopis, No. 32, 1949.

FRANKFURT, Sergei Mironovich.

The birth of man and steel
Moskva, Staryi ol'shevik, 1935. 272 p.

FRANKFURT, U.I.

Development of the second principle of thermodynamics. Trudy Inst. ist. est. i tekh. 19:564-602 '57. (MIRA 11:2)
(Thermodynamics)

KUZNETSOV, B.G.; FRANKFURT, U.I.

History of the law of the conservation and transformation of energy. Trudy Inst.ist.est.i tekh. 28:339-376 '59.
(MIRA 13:5)

(Force and energy)

KOREN', N.N.; FRANKFURT, U.I. (Brest)

History of physical methods in determining the speed of light.
Vop.ist.est.i tekh. no.10:59-62 '60. (MIRA 14:3)
(Light—Speed)

FRANKFURT, Usher Ioynovich;KUZNETSOV, B.G., otv. red.; LARIN, S.I., red. izd-va; VOLKOVA, V.V., tekhn. red.

[Essays on the history of the special theory of relativity] Ocherki po istorii spetsial'noi teorii otnositel'nosti. Moskva, Izd-vo Akad. nauk SSSR, 1961. 193 p. (MIRA 14:10)
(Relativity)

FRANKFURT, U.I.

History of the theory of thermoelectric currents, 1822-1900.
Vop.ist.est. i tekh. no.11:54-57 '61. (MIRA 14:11)
(Thermoelectricity)

PAPLAUSKAS, A.B.; FRANKFURT, U.I.

"Johann Peter Gustav Lejeune-Dirichlet; documentary materials relating to his life and work" by Kurt-R. Biermann. Reviewed by A.B. Paplauskas, U.I. Frankfurt. Vop.ist.est. i tekh. no.11:154-155 '61. (MIRA 14:11)

(Lejeune-Dirichlet, Peter Gustav, 1805-1859)
(Biermann, Kurt-R.)

FRANKFURT, U.I.

"Physical studies and lectures" by M. Planck. Reviewed by U.I. Frankfurt. Vop.ist.est. i tekh. no.11:152-154 '61. (MIRA 14:11)

(Physics—Philosophy)
(Planck, Max Kark Ernest Ludwig, 1858-1947)
(Planck, M.)

FRANKFURT, U.I.; FRENK, A.M.

Outline of the development of optics of moving bodies. Trudy Inst. ist. est. i tekh. 43:3-49 '61. (MIRA 15:1)
(Optics)

FRANKFURT, Usher Ioynovich; FRENK, Aleksandr Moiseyevich; NIKIFOROVSKIY, V.A., red. izd-va; SIMKINA, G.S., tekhn. red.

[Christiaan Huygens, 1629-1695]Khristian Giuigens, 1629-1695. Moskva, Izd-vo Akad. nauk SSSR, 1962. 325 p. (MIRA 15:10)
(Huygens, Christiaan, 1629-1695)

GRIGOR'YAN, A.T.; FRANKFURT, U.I.

"From the history of natural sciences and engineering." Reviewed by A.T.Grigor'ian, U.I.Frankfurt. Vop.ist.est.i tekh. no.12: 225-226 '62. (MIRA 15:4)

(Science)

FRANKIV, Ye.M.

Adjustment by V.V. Popov's method, using a separate recording sheet. Geod. i kart. no.5:58-60 My '62. (MIRA 15:7)
(Leveling)

FRANKFURT, YU.

"Collected scientific papers" by P.Ehrenfest. Reviewed by U. Frankfurt. Vop.ist.est.i tekh. no.12:218-219 '62. (MIRA 15:4)
(Ehrenfest, Paul, 1880-1933) (Physics)

FRANKFURT, U.I.

M.V.Lomonosov and evolution of the space theory. Vop.ist.est.i tekh. no.12:108-118 '62. (MIRA 15:4)
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Space and time)

FRANKFURT, U.I. (Moskva)

"Einsten" by B.G.Kuznetsov. Reviewed by U.I.Frankfurt. (MIRA 16:4)
Priroda 52 no.3:121-122 '63.
(Einstein, Albert, 1879-1955)
(Kuznetsov, B.G.)

FRANKFURT, V. T.

Examples in recomputation of metallic railroad bridges
Moskva, Goszheldorizdat, 1933. 126 p. (52-56241)

TG445.F74

FRANKFURT, Ya. L.

USSR/Engineering Apr 1947
Engines - Performance
Mathematics - Nomography

"Calculating the Mechanical Characteristics of an Asynchronous Machine," Professor Ya. L. Frankfurt, Institute of Steel imeni I. V. Stalin, 2 pp

"Vest Elektro-Prom" No 4

The author states that it would be valuable to make mechanical diagrams of machines from data found in catalogs. With this in mind he presents formulae and nomograms. His simple system can be used for machines with contact rings as well as for closed circuit machines of ordinary construction. Gives

ID 26726

USSR/Engineering (Contd) Apr 1947

various formulae for machines with closed circuit and ring contacts.

ID

26726

FRANKFURT, Ya. L.

"The interrelationship of technological and power factors in the process of rolling metals", by Professor Ya. L. Frankfurt, at the Power Engr. Inst. im KRZHIZHANOVSKIY of the Acad. Sce. USSR.

SO: Elektrichestvo, No 5, Moscow, May 1947 (U-5533)

PA 15/49T28

FRANKFURT, YA. L., PROF

USSR/Electricity Jul 48
Terminology

"The Accuracy of Electrical Engineering Terms," Prof Ya. L. Frankfurt, Moscow Inst of Steel imeni Stalin, ¼ p

"Elektrichestvo" No 7

Work of commission on electrical terminology should be extended to include meaning of letters.

15/49T28

FRANKFURT, YA. L.

29672

Po Provodu Prioritygta v soedanii

Elyektrichreskogo Dvigatyglya (V svyaei So Stat'yey Mikhalovicha v amygrik.

zhurn. "Electrical Engineering", 1948, No. 11, Podvvergayushch yego somnyeniyu

Prioritvet V.S. Yakobi) Vyestnik elyektroprom-sti, 1949 No. 8. s. 1-3-

Bibliqr: 7 naev. 2 Lyet. Zhurn. st. no. 40

SO: LETOPIS' NO. 40

FRANKFURT, Ya.L.; RAYEVSKAYA, Ye.S.

Limits of the compensating capacity of a synchronous motor driving a mechanism with intermittent load. Energ.biul. no.12:18-22 D '53. (MLRA 6:11)

(Electric motors, Synchronous)

FRANKFURT, Ya. L.

AID P - 814

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 6/7

Author : Frankfurt, Ya. L.

Title : Efficient feeder arrangement for sub-stations in the oil field and refineries

Periodical : Energ. byul., #9, 26-29, S 1954

Abstract : Discussion of circuits proposed by various authors in Energ. byul., 1952, #1, p. 1, and #4, p. 18; 1952, #1, p. 25, #5, p. 20 and #9, p. 26. The improved system proposed by the author is supposed to eliminate unfavorable features of the analysed circuits. Eight Russian references (1952-1953).

Institution : None

Submitted : No date

FRANKFURT, Ya.L.

AID P - 1663

Subject : USSR/Electricity-Petroleum Industry

Card 1/2 Pub. 28 - 3/9

Author : Frankfurt, Ya. L.

Title : Single circuit three phase transmission line safeguarding uninterrupted power supply

Periodical : Energ. byul., 2, 10-14, F 1955

Abstract : The author describes a transmission line consisting of 4 wires to carry various up to 150 kv voltages, including 6 and 10 kv. The 4th wire is to be used if and when one of the three main wires fails. The application of automatic reclosure (APV) and automatic throwing-on of the reserve supply (AVR) is presented and illustrated with 3 diagrams. The author claims that construction of a 4-wire line instead of a double circuit saves initial expenses and that later, with expansion of needs, such a 4-wire line could be transformed into a double-circuit transmission line by the simple addition of two wires.

Energ. byul., 2, 10-14, F 1955

AID P - 1663

Card 2/2 Pub. 28 - 3/9

Institution: None

Submitted : No date

Frankfurt, Ya. L.

AID P - 2014

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 18/31

Author : Frankfurt, Ya. L., Prof., Moscow

Title : Works of M. O. Dolivo-Dobrovolski in the evaluation of his contemporaries

Periodical : Elektrichestvo, 4, 75-78, Ap 1955

Abstract : The author summarizes comments about M. O. Dolivo-Dobrovolski's works which appeared during his lifetime in foreign periodicals. Fourteen refs. (1888-1892). One Russian - 1954.

Institution: None

Submitted : No date

FRANKFURT, Ya.L., professor.

A.L.Linev, outstanding Russian pioneer in the city electrical transportation system, active participant of the building of the first Moscow streetcar. Gor.khoz.Mosk.30 no.12:30-31 D '56. (MLRA 10:2)
(Linev, Aleksandr Loginovich)

FRANKFURT, Ya.L., professor.

Automatic control of wire-drawing machines. TSvet.met.27 no.3:55-63 My-Je '54. (MIRA 10:10)
(Automatic control) (Wire drawing)

FRANKFURT, Ya.L.

Some forgotten Russian pioneers in electrical engineering.
Trudy Inst.ist.est.i tekh. 26:101-117 '59.
(MIRA 13:5)

(Electric engineering--Biographies)

FRANKFURT, Ya.L., prof.

Concerning the term "rotative moment" and letters for its designation. Elektrichestvo no.10:71 O '60. (MIRA 14:9)
(Mechanical engineering--Terminology)

AKIMOV, Vyacheslav Filippovich, inzh.; VINOGRADOV, Yuriy Ivanovich, inzh.; GINZBURG, Mark Yakovlevich, inzh.; KASPAR'YANTS, Konstantin Saakovich, inzh.; FRANKFURT, Yakov Mironovich, inzh.; MAMIKONOV, A.G., red.; NOVICHKOVA, M.M., ved. red.; VORONOVA, V.V., tekhn. red.

[Automation of field petroleum processing and gas transportation]Avtomatizatsiia promyslovoi podgotovki nefti i transporta gaza. [By]V.F.Akimov i dr. Moskva, Gostoptekhizdat, 1963. 166 p. (MIRA 16:3)

(Oil fields--Equipment and supplies) (Automation)
(Gas, Natural--Pipelines)

SADYKHOV, I.D.; FRANKFURT, Ya.M.; ABDULLAYEV, N.D.

Evaluation of the quality of petroleum demulsification. Azerb.-khim.zhur. no.2:59-64 '62. (MIRA 16:3)
(Petroleum--Refining) (Emulsions)

FRANKFURT, Ya.M.

Automatic control of the electric dehydration and electric desalting of oils. Neft. khoz. 42 no.6:46-49 Me '64. (MIRA 17:8)

Radiology

YUGOSLAVIA

CIZMIC, Marinko, Dr; SVARTCA, Radosav, Dr; FRANKIC, Aleksandar, Dr: Department of Radiology, Medical Center, Sibenik (Rengenoloski zavod Medicinskog centra u Sibeniku), Sibenik.

"X-ray Symptoms and Diagnosis of the Kidney Echinococcus"

Zagreb, Lijecnicki Vjesnik, Vol 88, No 2, 1966, pp 151-156

Abstract /Authors' English summary/: Diagnosis of the echinococcus of the kidney has specificities which can be observed in the regular X-ray of the kidney, but are particularly visible when the cyst is calcified. In ill-defined cases pyelography is the most reliable examination method. It has its own X-ray characteristics as is confirmed by the cases observed by the authors, all of them being surgically verified. 1 Yugoslav and 5 Western references. Manuscript received 22 Dec 64.

1/1

FRANKIEWICZ, B.

Some experiences from the psychological selection of mine workers. p. 448.

PRZEGLAD GORNICZY. (Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Gornictwa) Katowice, Poland, Vol. 15, no. 9, Sept. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

FRANKIEWICZ, Bogumil, mgr

Selection of workers for industry. Wiad hut 16 no.11:356-362 N '60.

FRANKIEWICZ, Bogumil, mgr.; WITOSZEK, Alfred, mgr.

Psychological tests and possibilities of forecasting success in work on the example of hoisting engineers. Przegl gorn 17 no.12: 652-658 '61.

FRANKIEWICZ,Bogumil,mgr; SIKORA,Antoni, mgr.

Industrial psychology in metallurgical industries; methods and results of researches of job fitness. Wiad hut 17 no.11:319-323 N '61

FRANKIEWICZ, Bogumil, mgr

Labor psychology and the problem of the rate of accidents in industry. Wiad hut 18 no.12:361-365 D '62.

[illegible], Bogumil, [illegible]

Research works of [illegible] psychologists. [illegible] Przegl psychol [illegible] 7: 159-[illegible] '64.

Report on a scientific journey to the German Democratic Republic. Ibid.:200-[illegible]

1. Chairman of the Katowice Branch of the Polish Psychological Society.

FRANKIEWICZ, Bogumil, mgr

For a tighter link between psychology and industrial practice.
Wiad hut 21 no.1:17-20 Ja '65.

1. Chairman, Katowice Branch of the Polish Psychological Society.

FRANKIEWICZ, Marian, mgr inz.

Education of the geodetic staff in secondary vocational schools.
Przegl geod 34 no.12:497-498 D '62.

FRANKIEWICZ St.

Technologia metali (Technology of metals), by St. Frankiewicz. Reported in New Books (Nowe Ksiaski), No. 7, April 1, 1956.

FRANKIEWICZ, Stanislaw, dr inz.

Activities of the Textile Laboratory of the Central Institute of Industrial Safety. Przegl mech 22 no.7/8:218-220 10-25 Ap '63.

1. Head, Department of Textiles, Central Institute of Industrial Safety, Warsaw.

FRANKIEWICZ, Stanislaw, dr inz.

Organization of the Provincial Club of Engineering and Rationalization in Lodz. Przegl mech 22 no.7/8:249-250 10-25 Ap '63.

1. Chairman, Voivodeship Engineering and Rationalization Club, Lodz.

FRANKIEWICZ, W.

Erosional forms of recent origin in the loess area around Ostrowiec. p.339.
PRZEGLAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW. (Polska Akademia Nauk. Instytut Geografii) Warszawa
Vol. 27, no. 2, 1955

So. East European Accessions List Vol. 5, No. 1 Jan. 1956

FRANK-KAMENETSKIY, D. A.

Origin of chemical elements. Khim. v shkole 17 no.6:3-15 N-D '62. (MIRA 16:1)

(Chemical elements)

FRANK-KAMENETSKIY, D.A., prof. (Moskva)

New hypotheses on the moon. Priroda 52 no.2:112 '63. (MIRA 16:2)

(Moon)

FRANK-KAMENETSKII, D.A. [Frank-Kamenetskiy, D.A.], prof., d-r na fiz.-mat. nauki (Moscow)

Seven faces of the universe. P iroda Bulg 13 no.4:94-95 Jl-Ag '64.

...ovan, I. A.; Kozorovitskiy, ... L.; ...anov, V. ...; ...mirnov, ...;
...-Kamenetskiy, D. A.

TITLE: Magnetosonic resonance in a toroidal system

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 1, 1965, 72-7...

TOPIC TAGS: magnetosonic resonance, toroidal plasma system, magnetic sound amplification, plasma heating, Tokomak

ABSTRACT: To provide better conditions for prolonged plasma confinement, the authors used a toroidal chamber with longitudinal current, in which the possibility of excitation of magnetosonic resonance has never been ... previously. The experimental setup is shown in Fig. 1 of the Enclosure. A large ratio of longitudinal magnetic field to the field of the current ... was used to obtain maximum plasma stability. The use of longitudinal ... in conjunction with a ... screen, as described by V. D. Shafranov ... 1962) ... equilibrium of the plasma column. The magnetic sound was excited by a

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ACCESSION NR: AP5004376

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magnetic-field fast-rise and slow-decay pulse of maximum intensity ~ 4 koe and of duration ~ [illegible]50 μsec. The longitudinal current was produced by discharging a capacitor in the primary circuit of the toroid transformer, the secondary winding of which was the plasma loop. The maximum electric field intensity in the plasma was [illegible] and in most experiments the current [illegible] the magnetic field [illegible] [illegible] contraction [illegible] cross section. The [illegible] magnet[illegible] [illegible] with the plasma was only [illegible] and amplitude along the column axis was not very [illegible] It is [illegible] the effect can be used [illegible] in [illegible] systems with a strong magnetic field [illegible] The authors thank [illegible] discussions, [illegible] the work." [illegible] figures and 5 formulas. [02]

Card 2/4

ACCESSION NR: AP5004376

ASSOCIATION: None

SUBMITTED: 04Jul64 ENCL: 01 SUB CODE: ME

NO REF SOV: 008 OTHER: 001 ATD PRESS: 3199

Card 3/4

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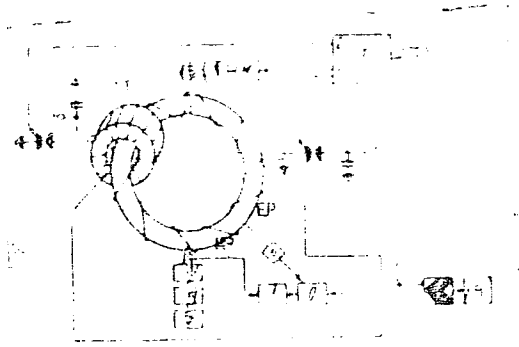

Fig. 1. Diagram of setup

TT - Toroidal transformer; 1, M - generator for preliminary ionization and modulator; 4, 5, 6 - pumping system, 7, [illegible] 8 - synchronizer [illegible] erator; MP - magnetic probe; [illegible] tric probe.

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L 22192-66 EPF(n)-2/EWT(1)/ETC(f)/EWG(m) IJP(c) AT

ACC NR: AP6004915 SOURCE CODE: UR/0056/66/050/001/0039/0045

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B

AUTHOR: Vdovin, V. L.; Rusanov, V. D.; Frank-Kamenetskiy, D. A.

ORG: none

TITLE: Investigation of nonpotential drift waves in a stationary magnetoacoustic plasma 21,44 55

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 39-45

TOPIC TAGS: magnetoactive plasma, magnetoacoustic effect, turbulent plasma, hydrogen plasma, electron temperature, electron density, acoustic noise, drift mobility

ABSTRACT: The purpose of the investigation was to check on the theoretically predicted excitation of solenoidal (nonpotential) drift fluctuations in an inhomogeneous plasma. To this end, the authors investigated magnetic noise in a setup in which the plasma is produced by the magnetoacoustic method in a glass tube situated in a fixed magnetic field (Fig. 1). The plasma flowed continuously along the axis into the measured volume and the magnetic field varied from 700 to 2500 oe. The measurements were made on hydrogen plasma in the pressure range 1×10^{-3}--5×10^{-3} mm Hg. The rf power introduced into the discharge was 4 kw. In this pressure range the electron temperature varies from 4 to 10 ev. The electron density at the

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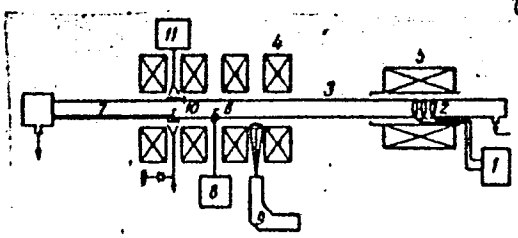

Fig. 1. Diagram of experimental apparatus: 1 - rf generator, 2 - rf coil, 3 - glass tube, 4 - main magnetic field coil, 5 - auxiliary magnetic field coil, 6 - radially movable electric probe, 7 - longitudinally movable electric probe, 8 - spectrum analyzer, 9 - monochromator, 10 - Fabry-Perot interferometer, 11 - signal generator.

center of the chamber was 5×10^{11}--5×10^{12} cm^{-3}. Two diagnostic techniques were used in these experiments, determination of the electron density with a double electric probe and a microwave Fabry-Perot interferometer operating at 8 mm, and determination of the electron temperature by double electric probes and by an optical method. Measurements were made of the spatial distributions of the field components, of the dependence of the frequency on the magnetic field, and of the phase relationships of the oscillations. Two types of magnetic noise were observed. One was a strong solenoidal noise (approximately 0.05 oe) with fundamental frequency of the order of 100 kcs. Its spectrum had a high harmonic content, with most of the noise power concentrated in the harmonics at low pressures. The dependence of this noise on the plasma parameters was investigated and the results are discussed from

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L 22192-66

ACC NR: AP6004915 3

the point of view of possible excitation of Alfven drift waves in the inhomogeneous plasma. In addition to the magnetic noise, intense potential electric fluctuations were observed, similar to those investigated in detail elsewhere (Yadernyy sintez [Nuclear Fusion], 1966, in press). It is deduced that the magnetic fluctuations observed in the present investigation are not a component of the potential fluctuation investigated earlier. The high frequency noise observed in the experiments (3--5 Mcs) is of magnetoacoustic nature, but its excitation is not yet clear. The authors thank Ye. K. Zavoyskiy and L. I. Rudakov for valuable comments and V. Sannikov for help in the experiments. Orig. art. has: 7 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 02Aug65/ ORIG REF: 005/ OTH REF: 003

Card 3/3 nst

S/879/62/000/000/086/088
D234/D308

AUTHOR: Frank-Kamenetskiy, G. Kh.

TITLE: Application of the theory of orthotropic shells of revolution to the design of complex structures in water turbine construction

SOURCE: Teoriya plastin i obolochek; trudy II Vsesoyuznoy konferentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo AN USSR, 1962, 552-556

TEXT: The author extends the theory of anisotropic shells to the case of variable rigidity. He obtains the following equations in terms of Meisner's variables:

$$\psi'' + \frac{(\nu D_1)'}{\nu D_1}\psi' - \frac{D_0}{D_1}\left(\frac{\nu'}{\nu}\right)^2\psi + \mu\frac{(\nu' D_0)'}{\nu D_1} + \frac{1}{R_2 D_1}V = -\frac{1}{\nu D_1}F_2(s);$$

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$$V'' + \frac{\left(\frac{\nu}{h^2}\right)'}{\frac{\nu}{h_2}} V' - \frac{B_0}{B_1}\left(\frac{\nu'}{\nu}\right)^2 V - \mu \frac{\left(\frac{\nu'}{h_1}\right)'}{\frac{\nu}{h_2}} - \frac{Eh_2}{R_2}\Phi = -\frac{Eh_2}{R_2}\Phi_0(s) \qquad (5)$$

These are reduced to a homogeneous form by transformation of variables and solved by asymptotic integration for large k (thin shells):

$$\Phi = F(\psi)\left[A_1 e^{\psi}\cos(\psi + a_1) + A_2 e^{-\psi}\cos(\psi + a_2)\right];$$

$$V = \frac{\lambda_2^2}{\lambda_1^2}\frac{Eh^2}{2m^2} F(\psi)\left[A_1 e^{\psi}\sin(\psi + a_1) - A_2 e^{-\psi}\sin(\psi + a_2)\right] - \frac{F_2(s)}{\cos\varphi}$$

Card 2/3 (9)

Application of the ...

S/879/62/000/000/086/088
D234/D308

The example of a truncated cone is considered, with an application of the formulas to the design of a cover for a hydraulic turbine of a new type. There is 1 figure.

Card 3/3

FRANK-KAMENETSKIY, G.Kh., inzh.

Application of anisotropic plate theory in the design of the cover of a Francis turbine. [Trudy] LMZ no.10:133-148 '64.

Design of the cap of a turbine with shell structure for an experimental unit of the Volga Hydroelectric Power Station (22d Congress of the CPSU). Ibid.:169-190

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ARONSON, A.Ya., kand. tekhn. nauk; BUGOV, A.U., kand. tekhn nauk; MALYSHEV, V.M., kand. tekhn. nauk; SKOYLEV, I.A., inzh.; FRANK-KAMENETSKIY, G.Kh., kand. tekhn. nauk; POSTOYEV, V.S., kand. tekhn. nauk, retsenzent; ORGO, V.M., kand. tekhn. nauk, red.

[Strength calculation of the parts of hydraulic turbines] Raschet na prochnost' detalei gidroturbin. Moskva, Mashinostroenie, 1965. 391 p. (MIRA 18:10)

MIAKI, Andrey Gerasimovich; FRANK-KAMENETSKIY, V.A.

[Geological excursion to the environments of Pitkyaranta]
Geologicheskaia ekskursiia v okrestnosti Pitkiaranty.
Petrozavodsk, Gos. izd-vo KASSR, 1961. 107 p.
(MIRA 18:5)

KUKHARENKO, A.A.; FRANK-KAMENETSKIY, V.A.; SHAFRANOVSKIY, I.I.

Once more on the reference book "Minerals"; a review. Zap.Vses.min.ob-va 92 no.1:108-111 '63. (MIRA 16:4)
(Minerals)

RIMSKAYA-KORSAKOVA, O.M.; BUROVA, T.A.; FRANK-KAMENETSKIY, V.A.

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FRANK-KAMENETSKIY, V.A.

"Mineral crystals; curve-faced, skeleton, and granular forms" by T.I.Shafranovskii. Reviewed by V.A.Frank-Kamenetskii. Zap.Vses.-min.ob-va. 92 no.2:254-256 '63. (MIRA 16:5)
(Crystallography) (Shafranovskii, I.I.)

FRANK-KAMENETSKIY, V.A.; SAL'DAU, E.P.; SOKOLOVA, Ye.P.

Second All-Union Conference on the X-Ray Diffraction of Minerals.
Zap. Vses. min. ob-va 93 no.1:118-120 '64 (MIRA 18:2)

ALYAVDIN, V.F.; BONSHTEDT-KUPLETSKAYA, E.M.; GODLEVSKIY, M.N., doktor geol.-mineral.nauk; KOMKOV, A.I.; KUKHARENKO, A.A., prof.; SAL'DAU, E.P.; SMOL'YANINOVA, N.N.; BORNEMAN-STARYNKEVICH, I.D.; TATARSKIY, V.B., prof.; FRANK-KAMENETSKIY, V.A.

From the Commission on New Minerals of the Minerological Society of the U.S.S.R. Zap.Vses.min.ob-va 94 no.5:555-565 '65. (MIRA 18:11)

1. Komissiya po novym mineralam Vsesoyuznogo mineralogicheskogo obshchestva. 2. Predsedatel' Komissii po novym mineralam Vsesoyuznogo mineralogicheskogo obshchestva (for Frank-Kamenetskiy). 3. Zamestitel' predsedatelya Komissii po novym mineralam Vsesoyuznogo mineralogicheskogo obshchestva (for Bonshtedt-Kupletskaya). 4. Sekretar' Komissii po novym mineralam Vsesoyuznogo mineralogicheskogo obshchestva (for Sal'dau).

FRANKL, A. ; GROSSMAN, A.

The dependence of the content of boron in coal tar on the property of coal and the conditions of degassing. p. 186.

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Uncl.

C FRANKL, F.

17

A new method of augmenting the action of penicillin. M. Mácser and P. Frankl (Univ., Pécs, Hung.). *Dermatologica* 100, 102-4(1950)(in French).--Penicillin, dissolved in a 10-15% soln. of gelatin, was detected in the blood 8 hrs. after an intramuscular and 6 hrs. after an intravenous injection. A buffer mixt. of phosphates (pH 6-7) or a soln. of citrates (pH 7) or acetate (pH 4) reinforced the effect.
Barbara R. Murray

FRANKL', F.I.

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MATHEMATICS

26.2000

35853
S/044/62/000/002/042/092
C111/C444

AUTHOR: Frankl' F. I.

TITLE: On the direct problem of the theory of the Laval nozzle

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1962, 74-75, abstract 2B527. ("Uch. zap. Kabardino-Balkarsk. un-t," 1959, vyp. 3, 35-61)

TEXT: One constructs the plane stationary irrotiational flow of an ideal compressible gas in a Laval nozzle, the walls of which are little different from the walls of another Laval nozzle in which the gas flow is known. This construction leads in the hodograph plane to the determination of the variation $\delta\omega$ of the flow function ω, which has been transformed according to Legendre and which in the neighborhood of the velocity of sound approximatively satisfies the equation

$$\delta\omega_{\theta\theta} + \partial(\delta\omega_{\eta}/\eta)/\partial\eta = 0 \qquad (1)$$

the values of $\delta\omega$ on the curves $\bar{L}_1$ and $\bar{L}_2$ are given; $\bar{L}_1$ and $\bar{L}_2$ are the images of the walls of the "known" Laval nozzle in the hodograph plane. Here θ is the inclination angle of the velocity vector with

Card 1/3

respect to the Ox - axis; $\eta(v)$ is a certain function of the absolute value of the velocity which the author has introduced. The explanation for such a position of the problem for unsymmetrical flows is given.

One finds families of special solutions $\omega_\nu(\theta,\eta) = \varsigma^\nu g_\nu(\theta/\varsigma)$ of (1) which on the characteristics $\varsigma^2 = \theta^2 + 4\eta^3/9 = 0$ are regular only for $\nu = m/3$ ($m = 0, 2, 3, \ldots,$), where $g_\nu(t)$ is expressed by hypergeometrical polynomials. By aid of these solutions one investigates the singularities of f_ω in the neighborhood of the centre of the flow (the point of intersection of the sound line with the stream line which is orthogonal to it). One investigates the families of special solutions which are obtained from (1) by separation of the variables.

One proves very detailed the uniqueness of the solution of the boundary value problem of "Frankl-Moravets" for the equation (1); thereby the boundary values of the solution are given on the curves L_1, L_2, which change its inclination to the axis $\theta = 0$ monotonously,

Card 2/3

and extend in positive direction of this axis into infinity; one searches for the solution of the problem in a domain which is bounded by these curves and by two characteristics of different families, originating in the origin (centre of flow). The method of his proofs as well as additional restrictions are described in another paper of the author (RZh. Mat, 1960, 5332). At last one carries out several gasdynamical conclusions of some results of the paper. The conclusions are corrected and completed in a later paper of the author. (Ref.2B326).

[Abstracter's note: Complete translation.]

S/058/61/000/012/004/083
A058/A101

AUTHORS: Frankl', F.I., Arynov, A.A.

TITLE: Photon-gas discharge from a vessel through a Lavalle nozzle

PERIODICAL: Referativnyy zhurnal. Fizika, no. 12, 1961, 22, abstract 12A340 (Uch. zap. Kabardino-Balkarsk. un-t, 1959, no. 3, 63 - 65)

TEXT: On the basis of the relativistic dynamics of gases, the authors investigate steady discharge of a photon gas from an infinitely wide vessel through a Lavalle nozzle for given temperature in the vessel.

[Abstracter's note: Complete translation]

Card 1/1

26.2000

35654

S/044/62/000/002/044/092
C111/C444

AUTHOR: Frankl', F. I.

TITLE: The generalisation of the Tricomi-problem and its application to the solution of the direct problem of the Laval nozzle

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1962, 75, abstract 2B329. ("Uch. zap. Kabardino-Balkarsk. un-t", 1959, vyp. 3, 79-93)

TEXT: Considered is the same gas-dynamical problem as in the preceding paper of the author (Ref. 2B327), only one supposes - in the opposite to the case there discussed (the walls of the nozzle form at infinity upstream an expanding angle, and the velocity becomes zero) - that the walls of the given and of the transformed nozzle upstream run out in two parallel straight lines at infinity, and that the velocity is given and different from zero. Concerning the known flow in the given nozzle one supposes that the flow domain D in the hodograph plane is bounded by the socalled normal curve and by two characteristics of different families of (1) (all indications look up in Ref. 2B327), which originate from the ends A and C of the normal

Card 1/3

The generalisation of the . . .

curve on the axis $\eta = 0$. The determination of $\delta\omega$ leads to the solution of the Tricomi problem for (1) in D under the condition of $\delta\omega/\eta$ being continuous on $\eta = 0$.

After the transformation of variables

$$z = \delta\omega;\ x = 2\theta/\theta_0 - 1;\ y = \operatorname{sgn}\eta \cdot \theta_1^{-4/3} \cdot \eta^2 \quad (\theta_1 = |AC|)$$

one obtains for the equation

$$\operatorname{sgn} y\,|y|^m z_{xx} + z_{yy} = 0 \quad (m = -1/2) \qquad (2)$$

in D' (image of D in the (x,y) plane) a boundary value problem, to which a continuous solution of (2) is searched, satisfying on A'C' the condition

$$z_y(x, +0) = -z_y(x, -0) = \nu(x);\ -1 < x < 1, \qquad (3)$$

and the ordinary boundary conditions of the Tricomi problem. The condition (3) here substitutes the continuity condition for z_y on the axis $y = 0$ in the Tricomi problem.

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The Generalisation of the . . . S/044/62/000/002/044/092
C111/C444

According to a method, formerly used by the author (Frankl', F. I., Izv. AN SSSR, Ser. matem. 1945, 9, no. 2) one proves the uniqueness of the boundary value problem, obtained for (2), if $-1 < m < 0$. One points to the fact that the uniqueness of the solution of the ordinary Tricomi problem for (2), where $-1 < m < 0$ (without the condition (3)) cannot be proved by this method.

Adjoining the solution of the problem is reduced to the well-known singular integral equation of Tricomi for the unknown quantity $\nu(x)$, according to a method rather ordinary in the theory of boundary value problems for equations of mixed type. The solution of this equation is written down. The class of functions in which the solution of this equation is searched, and also the classes of functions to which the boundary conditions of the boundary value problem and its solution shall belong, are not given. It is affirmed that the solution is such that it belongs to the class of functions which is determined by the theorem of uniqueness.

[Abstracter's note: Complete translation.]

Card 3/3

S/044/62/000/002/043/092
C111/C444

AUTHOR: Frankl', F.

TITLE: Notes to the paper of F. I. Frankl' "On the direct problem of the theory of the Laval nozzle"

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1962, 75, abstract 2B238. ("Uch. zap. Kabardino-Balkarsk. un-t", 1959, vyp 3, 349)

TEXT: Several precisitions and completions are given to the bibliography of the cited paper of the author (Ref. 2B327).

[Abstracter's note: Complete translation.]

Card 1/1

S/044/62/000/003/041/092
C111/C444

AUTHOR: Frankl', F. I.

TITLE: Investigations in the domain of nearsonic flows

PERIODICAL: Referativnyy zhurnal, Matematika, no. 3, 1962, 71-72, abstract 3B304. ("Inzhenernyy zh."(formerly Inzhenernyy sb.) 1961, 1, no. 1, 29-34)

TEXT: A summary of the results having been obtained by the author and his pupils lately in the theory of plane stationary irrotational flows of an ideal gas without consideration of the viscosity and of the heat-conduction.

In § 1 direct problems are formulated, concerning the Laval nozzle and the afflux of a profile by a flow, having the velocity of sound at infinity. These problems are solved according to the method of small disturbances. In the nozzle or in the neighborhood of the profile one searches a flow being little different from a well-known flow, the stream function $\bar{\psi}(\theta, \sigma)$ of which satisfies the well-known Chaplygin equation

$$K(\sigma)\psi_{\theta\theta} + \psi_{\sigma\sigma} = 0 \qquad (1)$$

Card 1/4

Investigations in the domain of ...

in the hodograph plane; here θ is the inclination angle of the velocity; K and σ are known functions of the modulus of the velocity w, where $K \gtrless 0$ for $\sigma \gtrless 0$. The variation $\delta\omega$ of the function ω which is obtained from the stream function ψ by a contact transformation, is determined from the solution of a certain boundary value problem for the equation

$$K\omega_{\theta\theta} + \omega_{\sigma\sigma} - K^{-1}\omega_{\sigma}\, dK/d\sigma = 0 \quad . \qquad (2)$$

In this problem the values $\delta\omega$ are prescribed on the curve $\bar{L}$, $\bar{L}$ being the image of the originally well-known flow in the nozzle or around the profile in the hodograph plane. The uniqueness and the existence of the weak (in a certain sense generalised) solution of this problem for (2) was proved by Moravets (Rzh. Mat, 1960, 6535) and the author (Rzh. Mat, 1961, 1B237; 4B283). In these proofs the variation δq of the consumption by the nozzle remains arbitrary which fact caused the author to conclude that the transsonic flow is not unique in a smooth Laval nozzle. Yet this conclusion contradicts the experiment as well as the elementary hydraulic theory of the Laval nozzle; therefore in the referred paper the author

utters the assumption that the remaining free parameters (δ q and others can be uniquely determined by the condition that the solution and certain combinations of its derivatives in some points of the flow (the centrum of the nozzle, points of intersection of the sound line with the nozzle wall or with the profile) have to be regular. An exact mathematical answer to this question is yet missing.

In § 2 one considers nearsonic flows with compression jumps which end in the flow, (a local supersonic zone on the surface of the profile which moves with high subsonic velocity). The author found a particular solution of the Tricomi equation

$$\eta \Psi_{\theta\theta} + \Psi_{\eta\eta} = 0 \qquad (3)$$

where η is a known function of the velocity; this solution is an example for an unbounded flow of such a type with even compression jumps, where the anterior half of the stream line by its end coincides with the sonic line (Frankl' F. I., Prikl. matem. i mekhan., 1955, 19, vyp. 4). In the supersonic domain of this flow there is formed a small stripe in which the velocity becomes triple-value. The possible causes of this

effect are discussed; one refers to the generalization of this example on the case of a curved jump; one formulates boundary value problems for (3) in the hodograph plane, the solution of which leads to the construction of flow around a profile with a local supersonic zone.

[Abstracter's note: Complete translation.]

Card 4/4

Frankl, F. S. Some remarks on

Marxist standpoint. On the other hand he

of the ideas of Einstein and other

the same point of view

Ca

11H

Healing effect of Prontosil in erysipelas. Josef Frankl. *Orvosi Hetilap* 80, 980-4(1936).—Daily administration of 3 tablets of Prontosil (4-sulfonamide-2,4-diaminoazobenzene-4-sulfonamide·HCl) for 3 days showed very good effects. S. S. de Finály

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

The toxic effect of penicillin on heart muscles. József Frankl and László Szekeres (Univ., Pécs, Hung.). *Magyar Belorvosi Arch.* 2, 252-4(1949).—Isolated frog heart was not affected by 10^4 units of penicillin (I)/ml.; 12,550 units stopped heart activity in 2-3 mins.; 25,100 units caused instantaneous standstill. This effect was reversible. I had no effect when administered simultaneously with 0.1% gelatin. Gelatin reinstated the heart activity stopped by I. The inhibiting effect of I was observed also on the heart treated with atropine. The toxic effect of I is due to its K content (10-5 mg. K/12) mg. I). The antitoxic effect of gelatin is caused by its Ca content (about 40-50 mg. %). István Pinály

1.A

11ff

Combined effect of digitalis and penicillin. László Szekeres, József Frankl, and Lenke Rudas (Inst. Pharm., Pécs, Hung.). *Magyar Belorvosi Arch.* 3, 57-60(1950).—A daily injection of 10^4 units of penicillin (I) was given for 5 days, then digitalis (II) was applied in a diln. of 1:40,000 to the isolated heart of *Rana esculenta* of 60-80 g. wt., stimulated with elec. induction shocks at the rate of 25/min. The systolic standstill took 3 times as long as with untreated hearts. The same effect was observed when I was applied in the cannula of the isolated frog heart 10-15 min. before administering II. The simultaneous administering of I and II had no effect on the time required to stop the function of the heart. I seems to have no influence on II effect but it probably affects the permeability of heart-muscle cells. This was confirmed when frog hearts, treated with I and stimulated with identical frequencies, absorbed less methyl violet than untreated controls. The K content of I prepns. did not influence their effect. István Fináły

FRANKL, J.;KORDOVANYI, D.;VASS, I.;SEBESTYEN, J.;VARGA, T.

PAS therapy of extrapulmonary tuberculosis. Orv. hetil., Budap. 92 no. 45:1459-1462 11 Nov. 1951. (CLML 21:3)

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